fundamental to an understanding of the invention, is expressed by the statement that the contact field includes contacts ***fixedly*** connected to the semiconductor device during both modes, but transmit data only in contact mode.

As opposed to this, the contacts in Kreft (5,773,812) are selectably fixed to the semiconductor device via a switching element (see Abstract and the description of the contact block 10, 8 at col. 5, line 63 as well as claim 1 at col. 7, line 59).

The arrangement disclosed by Kreft (5,773,812) is thus similar in principle to U.S. Patent No. 5,206,495 also to Kreft discussed in the opening section of the application [see page 2, line 1 through page 3, line 14].

It is therefore respectfully submitted that Claim 1 is neither anticipated by Kreft (5,773,812) nor rendered obvious by Kreft (5,773,812) in combination with the other references cited by the Examiner or made of record by Applicants.

The remaining claims are likewise deemed to be patentable as being dependent directly or indirectly on Claim 1. However, the following brief comments are offered with regard to specific objections of the Examiner.

The Examiner made a global rejection of the claims based on his understanding of Claim 1, as discussed above. To be sure, some of the features recited in the subsidiary claims such as Claim 24 are known techniques, well known in contact/ contactless smart cards having switchable contact/contactless interfaces. But the inventiveness of the present invention resides in that no separate switching is provided.

Rather the presence of an electromagnetic field on the antenna coil automatically enables contactless operation of the smart card and, by the same token, disables the contact field – even though, in the invention, ***the contact field remains fixedly connected to the semiconductor chip***. In the case that only a single input is provided to the semiconductor

chip, this requires that the semiconductor chip be programmed to operate under different communication protocols (i.e. ISO 7816 for contact data transfer and ISO 14443 for contactless data transfer); and that the correct protocol be employed depending on which interface is required.

It is respectfully submitted that this is novel and far from obvious over Kreft (5,773,812), where the contact field is **disconnected** from the semiconductor chip in contactless mode, thus completely removing any possibility of ambiguity and allowing the appropriate protocol to be selected via the same switch that effects selection of the contact field or the contactless interface.

The Examiner's sweeping rejection of Claims 9-27 is based on the fact that modulation schemes, coding and communications protocols are all known *per se*. One of the most attractive features of the present invention is that the antenna interface is externally programmable so as to allow the **same** smart card to be used for **different** applications. This is described in considerable detail in the specification with reference to Figs. 9 to 12. To take but one example: the antenna interface of Fig. 12 is adapted to be connected to a remote antenna so as to allow the smart card to be used in a gasoline management system. To this end, no internal coil antenna is provided and the antenna interface must be energized by the car battery as opposed via the electromagnetic field on the internal antenna coil (which is absent).

In this case, the clock, power and reset ports of the semiconductor device must be fed with the appropriate signals regardless of the whether the antenna interface is active or not. Specifically, the antenna interface will become energized only when an energized coil associated with a fuel nozzle is coupled to the external antenna coil 75 shown in Fig. 12. However, even in the absence of such mutual coupling, the antenna interface must be

adapted to produce the contactless mode signal so as to ensure correct protocol selection. This is achieved by customization means not remotely hinted at in Kreft (5,773,812) or in any of the other prior art references made of record. This feature, which finds expression in Claim 23, is thus clearly not trivial and affords a versatility not heretofore provided by prior art contact/contactless smart cards.

It will be appreciated that the foregoing detailed comments relating to Claim 23 are equally applicable to the other subsidiary claims. For example, Claim 25 (by way of example only) recites an approach that is diametrically opposed to the teachings of Kreft (5,773,812), wherein data can only exist on a single line to the semiconductor device owing to the switching in or out of circuit of the respective contact or contactless interfaces.

In view of the foregoing, it is respectfully reiterated that the claims are allowable over the prior art and favorable reconsideration by the Examiner is earnestly solicited.

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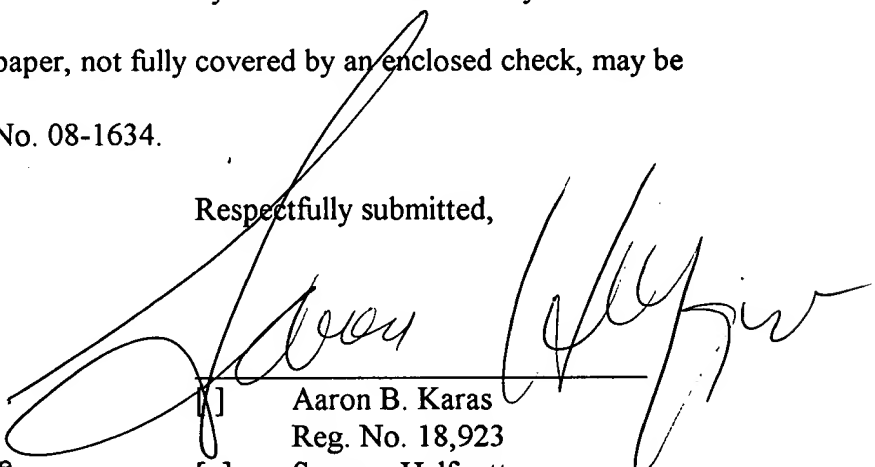
Respectfully submitted,



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SH:LC:fia:14.702

Filed by Express Mail
(Receipt No. EM216871496US
on 9-22-99
pursuant to 37 C.F.R. 1.10.
by Frances Sanzo